



# How to Repair “Whitening” or “Blushing” of Water-Based Acrylic Sealer

## Necessary Supplies:

- Short nap, solvent resistant roller cover & long handle extension
- Solvent resistant metal roller pan
- 2” solvent resistant brush
- Xylene compatible hand pump sprayer
- Xylene (1 gallon per 300 ft<sup>2</sup> of concrete surface)

There are two main reasons why water-based sealer may appear white in color:

- 1. Whitening** is a phenomenon that occurs several days after concrete has been sealed. It is characterized by excellent aesthetic qualities immediately following the application of a sealer, followed by the appearance of frosted or whitened areas several days later.

Concrete is a very porous material, similar in structure to a rigid sponge. There is always water vapor passing upward through concrete, drawn by the warmth of solar energy. As a result, whitening is generally most pronounced in areas of greatest sun exposure and less evident in shaded areas.

Acrylic sealers are designed to “breathe”, allowing water vapor to pass through but not allowing liquid water to absorb back into the concrete. But if a sealer is applied too heavily or frequently, that breathability is compromised allowing water vapor to condense beneath the sealer, causing it to disbond from the concrete surface. Those disbonded areas appear white.

- 2. Blushing** is a milky appearance within the sealer itself. Blushing of water-based sealers is either moisture trapped within the sealer as it cures, or insufficient coalescence of the film. Film formation of water-based products is harmed by low temperatures (air and/or substrate temperatures below 50°F / 10°C) and high humidity that slows evaporation.

The ability to repair whitening and blushing in water-based sealers is dependent upon two things; severity and time. At one end of the spectrum, severely uncoalesced acrylic looks like powdered sugar and is not salvageable. At the other end of the spectrum the film will be slightly milky in appearance and is generally fully repairable. The longer the problem exists, the

more difficult it can be to repair. Most cases fall somewhere in between, and the specific circumstances will dictate your level of success.

## Correction Process:

This is **not** a method for removing sealer from concrete. It is intended solely to rectify deficient aesthetics.

### Step 1

Apply Xylene to the problem area at a rate of 300 ft<sup>2</sup> per gallon. Work in manageable sections that can be reached with a handled roller. Allow the Xylene to dwell for 1 to 2 minutes until the sealer has softened.

### Step 2

Using the roller and handle extension, dampen the roller cover in Xylene and work the sealer in a back and forth manner similar to painting. Roll evenly and consistently, being careful not to leave a random roller pattern or entrap air in the sealer.

### Step 3

Working in manageable and reachable sections, continue this process over the entire repair area. A 2” solvent resistant paint brush can be used to remove excess sealer from deep recesses and joints.

### Step 4

Allow the Xylene to evaporate and the sealer to dry. It may be necessary to repeat steps 1 through 3 if the acrylic buildup is excessive.

## Tech Tips:

- Work in manageable size areas that you can reach with a long handled roller.
- This method works best on a cool, overcast day with no wind.
- An uneven film of acrylic will leave darker areas where acrylic is over-applied. A thin even film or coating is preferred.